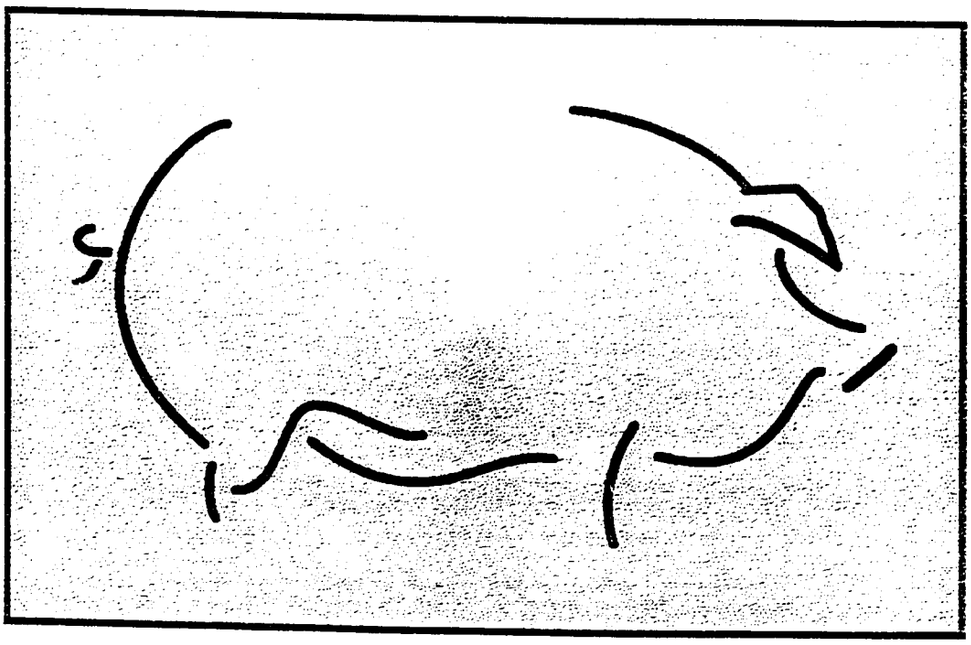
SAGAR

COMISION NACIONAL DE SANIDAD AGROPECUARIA

DIRECCIÓN GENERAL DE SALUD ANIMAL



Additional information requested
for the assessment of the

CLASSICAL SWINE FEVER

status in the state of Yucatán

MÉXICO, [illegible] 1998

ADDITIONAL INFORMATION REQUESTED FOR THE ASSESSMENT OF THE CLASSICAL SWINE FEVER (CSF) STATUS IN THE STATE OF YUCATAN

I FINANCIAL RESOURCES

1.- Federal budget allotted to the Classic Swine Fever (CSF) Program in the State of Yucatán. R.

Budget allotted to animal health 1993-1996		
Year	**Animal Health**	**Livestock Production Sub-Delegation in the State of Yucatán**
	Ps.$	Ps.$
1993	59.906.700	182.000
1994	103.751.000	97.700
1995	85.907.000	118.000
1996	91.193.000	149.200

The following amount was allotted to the CSF Campaign from the budget of the Yucatán Livestock Production Sub-Delegation:

State budget allotted to the CSF Campaign in Yucatán 1993-1996	
Year	**Ps.$**
1993	120,800
1994	71,200
1995	63.000
1996	75,000

Federal budget allotted to the CSF Campaign 1993-1996	
Year	**Ps.$**
1993	227.100
1994	444.900
1995	2.500.000
1996	1.000.000

The federal budget was used as support for the CSF Campaign in all states, in addition to the amount allotted to it from the budget of the Livestock Production Sub-Delegation of Yucatán to the CSF Campaign.

2.- What amount from the state budget is allotted to the CSF Control Program?

R. The support given by the Yucatán State government to animal health campaigns in controlling animal movements is as follows: Animal health inspection checkpoints in Uman, Siho, X'Tobil and Santa Elena; 10 hectares on which to build the stations in Halachó and Popolnah; a radio communications system (with a value of $200,000.00); two pickup trucks and fuel; 17 people assigned to it; Ps.$400,000.00 in 1993 and Ps.$200,000 in 1995; naming all the personnel of the Yucatán State Committee for Livestock Promotion and Protection to positions as livestock inspectors, in accordance with Article 13 of the State Livestock Production Law.

3.- What is the swine industry's contribution to the Classical Swine Fever Control Program?

R.

YEAR	AMOUNT CONTRIBUTED
1991	478,969.00
1992	588,122.00
1993	818,156.00
1994	299,806.00
1995	2,185,052.00
1996	960,000.00

In 1989 the state's organized swine producers created the Committee for the Control and Eradication of CSF and Other Swine Diseases in the State of Yucatán (CCE). Its activities are coordinated with those of the Yucatán Livestock Promotion and Protection Committee. The CCE has 5 full-time employees and 2 vehicles.

4.- In the event of the occurrence of CSF or any other exotic animal disease, what specific regulations or laws are there to ensure that there will be special monetary contributions for effective control and eradication of the exotic pathogen? How would the National Animal Health Emergency Mechanism (DINESA) be activated if no contingency funds are available for an emergency?

R. The decree published in the Federal Daily Gazette on February 16, 1988, and Chapter VII of the Federal Animal Health Law, as well as the Internal Regulations of the Ministry of Agriculture, Livestock Production and Rural Development (SAGAR), Chapter IV, Article 12, which created what is now DINESA, provide for the development of emergency organization charts that do not involve the expenditure of additional funds since they are made up of employees performing their normal duties in official agencies. For this purpose, the Mexico-United States Commission for the Prevention of Foot-and-Mouth Disease and Other Exotic Animal Diseases (CPA), based on its experience in this field, has developed national training programs for government employees and other people working in field of agriculture in order to have personnel with technical training available to act in any emergencies that might occur, who would to initiate actions immediately to control and/or eradicate any disease reappearing within the nation's territory or free zones. It should be stated that in a free state, the disease in question is considered to be exotic.

In complying with the decree, State Animal Health Emergency Groups (GEESA) are created, headed up by a coordinator and staffed by technicians from SAGAR, who in addition to their current responsibilities will be trained and organized to respond in the event of the occurrence of any of the above-mentioned diseases, in accordance with the organization structure provided for in the existing general or specific emergency plans. For this purpose, a continuing training program has been institutionalized consisting of courses, seminars, and simulations, as stated above, for personal from SAGAR and private veterinarians, which allows them to specialize and be selected for subsequent inclusion in the organization chart of their GEESA.

In carrying out the decree's objectives, the nation's territory is divided into eight emergency regions. Activities will be guided and directed by the General Directorate of Animal Health with the CPA's support and conducted in each region under the supervision of the coordinators in charge.

Once the presence of an exotic disease within the nation's territory has been confirmed, the Ministry of Agriculture, Livestock Production and Rural Development (SAGAR) will make the declaration and the personnel assigned to a GEESA will be called up immediately to carry out the duties preassigned to them.

The personnel involved will perform their activities in keeping with the provisions of the Federal Animal Health Law and in accordance with the general and/or specific emergency plan for the control and eradication of the exotic disease in question.

At the central level, the General Coordinator is the General Director of Animal Health and the Executive Officer is the Director of the CPA. As General Coordinators, they will be in charge of directing the application of measures contained in the corresponding emergency plan and arranging through the Ministry of Agriculture, Livestock Production and Rural Development for support from other agencies of the Federal Executive Branch and also from state and municipal authorities.

When the DINESA is activated because of an emergency, it has emergency funds assigned to it. At the same time, the General Director of Animal Health requests funds from the Office of the Assistant Secretary of Agriculture and Livestock Production or to the Head Director of the Animal Health General Commission (CONASAG), which reaches an agreement with its Executive Officer regarding the funds to be requested from SAGAR's Programming and Budget General Directorate of SAGAR, which in coordination with the Ministry of Finance will allot more resources to the DINESA. SAGAR has a special fund available for this purpose that is not subject to predetermined expenses so the funds can be allotted to the specific needs of the emergency.

Subsequently, the federal government, represented by SAGAR'S State Delegation and the DINESA, in combination with the state government authorities and the producers, will agree as to how each of the parties will contribute to achieving control and eradication of the exotic disease in question.

Article 36 of the Federal Animal Health Law includes the creation of contingency funds with which to deal quickly with animal health emergencies caused by the presence of exotic diseases. However, in practice the necessary resources have been obtained as work progresses and depending on the specific situation of the affected region. Chapter II of the Livestock Law for the State of Yucatan, covers these situations in Articles 79, 81, 82, 83, 84, 85, 86 and 88.

Yucatecan swine producers have a contingency fund amounting to Ps.$500,000.00.

II ACCREDITED VETERINARIANS AND OTHER AUTHORIZED PERSONNEL

1.- How many CSF-accredited veterinarians are there? How many are located in the State of Yucatán? How many accredited veterinarians are there anywhere with authorization from the Ministry of Agriculture (SAGAR) to perform accreditation duties in any state in Mexico?

R.- There are now 257 veterinarians accredited for CSF and Aujeszky's disease. Three of them are located in the State of Yucatán.

There is a total of 3,575 (December/96) accredited veterinarians in Mexico, some of whom are accredited for more than one disease, so on the same period, there was a total of 5,308 accreditations.

2.- What specific role do these veterinarians play in the CSF campaign? Are they accredited federal veterinarians who have authority in any state of Mexico or are they accredited state veterinarians who have authority only in the state in which they received their accreditation?

R. An accredited veterinarian is a professional recognized by SAGAR to conduct official

activities in the field of animal health.

Their responsibilities in control and eradication of CSF are those indicated in Title Three, Chapter I, of the Federal Animal Health Law:

• To conduct the activities for which they are authorized in accordance with the Official Regulations issued in this regard.

• To inform SAGAR whenever they learn of the presence of an animal disease or pest requiring compulsory notification in accordance with the Official Regulations issued by that agency to this effect.

• To provide SAGAR with lists of the certificate they issue in the matter and time periods established by the Federal Animal Health Law's regulations.

• To assist SAGAR in the event of animal health emergencies.

• To comply with the other obligations established as charges for said organisms, units and laboratories in the law regarding these issues.

3.- What are their official duties related to the CSF Campaign? What are they authorized to do? Do they engage in private veterinary practice in addition to their federal or state duties?

R. Their official duties related to the CSF Campaign are described in the previous item. Also, Official Mexican Standard NOM-018-ZOO-1994, Veterinarians Accredited as Verification Units Authorized to Provide Official Services in the Field of Animal Health, published on April 2, 1995, states under point 6 that the Duties of veterinarians accredited as Verification Units are the following:

• To coordinate with SAGAR, when appropriate, to provide official services in the animal health field in the specialized area for which they are approved.

• To schedule and conduct the activities for which they were authorized as a verification unit to provide official services in the field of animal health.

• To notify the corresponding Sub-Delegation of the date and location of the premises on which the animal health activities are to be conducted, which may be supervised by official personnel in accordance with the corresponding Official Mexican Standard.

• When veterinarians accredited as verification units conduct activities outside the state in which they were accredited, they must notify the Sub-Delegation of origin and the one they are visiting of the date and location of the premises on which the accreditation activities are to be performed, as stipulated in the corresponding Official Mexican Standard.

• To handle under strict control the official documents, certifications, and animal health certificates provided to them by SAGAR for conducting the duties entrusted to them.

• To issue official documents, certifications, and animal health certificates solely for the area of specialization of their accreditation.

• To endorse with their name, signature, stamp and accreditation number the issuance of official documents and animal health certifications solely for the accredited specialization. In the case of animal health certificates, they need only sign them and show the full name of the veterinarian accredited as a verification unit in the corresponding area.

• To send copies of the certifications and animal health certificates that they issue to SAGAR.

• To ensure proper application and use of official products and diagnostic tests for the area of specialization in which they are accredited, utilizing only chemical, pharmaceutical and biologic products regulated by SAGAR which comply with the corresponding Official Mexican Standard.

• To assist the authorities in the event of an animal health emergency in applying prevention, control or eradication measures against animal diseases or pests as decided by SAGAR.

• To report their accreditation activities to the corresponding Sub-Delegation.

• To assist and provide additional information when required by SAGAR.

• To maintain an orderly registry of activities conducted during the accreditation period.

• To orient producers regarding compliance with the Federal Animal Health Law and the official Mexican standards.

• To maintain constant vigilance regarding compliance with the Federal Animal Health Law and the Official Mexican Standards.

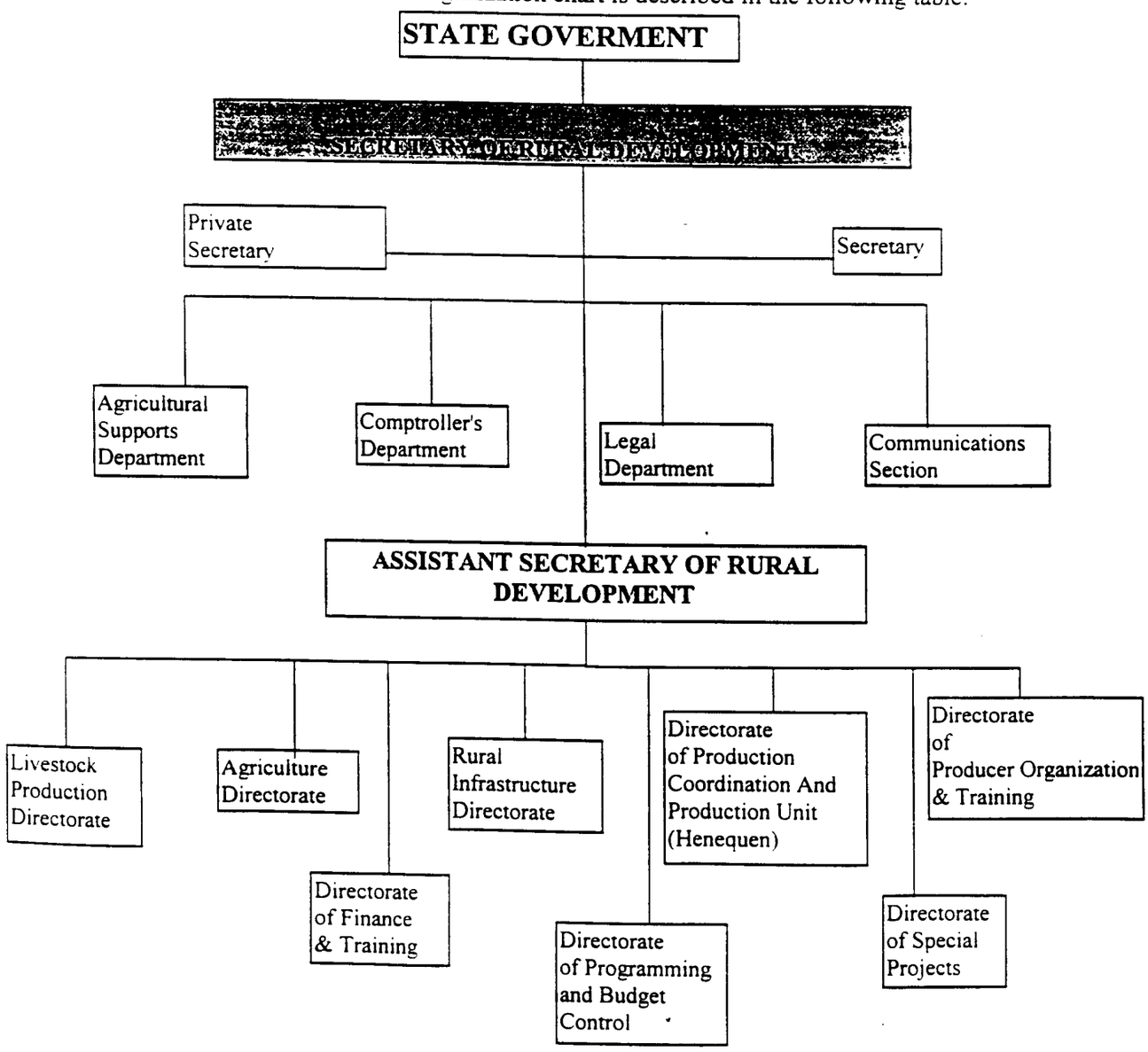
• To charge fees for the services provided.

As indicated above, veterinarians accredited for CSF provide services on swine-producing farms or to companies in private industry involved in swine production, where they also conduct their accreditation activities.

4.- Since there is no formal state animal health infrastructure in Yucatán, what structure really exists, considering the Ministry of Agriculture, Livestock Production, and Rural Development (SAGAR) as the Federal Government?

R. There is a State Animal Health infrastructure: the Committee for Livestock Promotion and

Protection, under the State Program for Control of Movements and Animal Health Campaigns (the organization chart described in the previous document), is part of this infrastructure and is supported with federal and state funds, and from producers in the form of fees charged for services. In addition, the Government of the State of Yucatán organizes and supports actions directed towards eradicating and preventing the entry of diseases and pests, through the Secretariat of Rural Development. It has a Director and 16 staff members. The Livestock Production Directorate of that Secretariat is responsible for the animal health area that is handled by the Federal Government and operates through the Committee for Livestock Promotion and Protection. The organization chart is described in the following table:



The State Program for Control of Movements and Animal Health Campaigns reports to the Yucatán State Committee for Livestock Promotion and Protection, which is headed up by a director from the State Government's Rural Development Secretariat. It was the State Government that initiated the establishment of the State Program for Control of Movements and Animal Health Campaigns, thus involving producers in decision-making, financing, and co-direction of the different animal health campaigns. Because of all of this, in this State Program the Federal and State Governments and the Committee for Livestock Promotion and Protection are equally important.

5.- In the organization chart for the Yucatán Delegation that was submitted, how many and exactly where in the organization chart are the veterinarians accredited for CSF? Are these nine CSF-accredited veterinarians federal or state?

R. The CSF-accredited veterinarians are independent of the Federal and State Governments and are not shown in the organization chart, since most of them are engaged in private practice.

The veterinarians shown in the organization chart are official Federal Government veterinarians employed in the State Delegations to which they are assigned.

III SWINE IDENTIFICATION

Does Mexico have a national swine identification program? Do these programs fall under the state committees? Please identify and describe.

R. There is a National Association of Registered Swine Breeders in Mexico with headquarters in León, Gto., which keeps a registry based on documents issued for purebred hogs of producers belonging to this association.

The swine identification program in the State of Yucatán is carried out in abattoirs under two schemes:

A) At the Federal Inspection Type abattoir (Keken), each farm that slaughters its animals in that facility has a number assigned to it that is placed on the back and body of hogs before slaughter.

B) In other abattoirs in the state (municipal slaughterhouses), as established in Article 119 of the State Livestock Law, hogs arrive with documentation showing their origin; likewise, buyers assign marks to their animals for practical identification purposes which are placed on their backs with a razor. In both cases, it is possible to correlate a hog's marks and/or numbers and its farm of origin in any abattoir.

They are also identified by means of the Animal Health Certificate, since according to Article 24 of the Federal Animal Health Law animal health certificates must contain the following data:

- Name and address of the proprietor, owner or importer.
- Place of origin and specific destination of animals, animal products and by-products, or biological, chemical, pharmaceutical and food products for use in animals or for consumption by them that are to be transported or imported, as well as their identification.
- Indication of the regulation followed.
- Date of issuance of the certificate.
- Duration of the certificate.

In Federal Inspection Type abattoirs (TIF) there is a system that permits a retrospective tracing of animals, if necessary. Each slaughterhouse has an official veterinarian who inspects the animals ante and post mortem. Each lot of animals is identified upon its arrival at the abattoir by farm of origin. If any abnormality is detected during the inspection, the farm of origin can be determined.

IV VACCINATION

1.- Since there is CSF vaccination in other states in Mexico, such as Campeche (in the control phase) and Quintana Roo (in the eradication phase), what measures have been taken to: 1) prevent the entry of vaccines; 2) prevent unauthorized vaccination in the State of Yucatán, especially since there is no organized veterinary infrastructure to enforce the regulations?

R. It should be explained that the State of Campeche has recently (July 15, 1996) been incorporated into the eradication phase, with marketing and application of CSF vaccines halted (5.3 of Official Mexican Standard NOM-037-Z00-1995. National Classical Swine Fever Campaign).

The State of Quintana Roo was declared free of CSF on June 11, 1996, as per the Federal Official Gazette.

2.- How are neighboring zones monitored? Who distributes vaccines and authorizes their use? Is there a veterinary infrastructure in the neighboring states? Who is authorized to administer them?

R. There is continuous, permanent vigilance at the central and state levels to verify that no biologics are distributed in those states through veterinary pharmacies and distributors of veterinary products.

3.- From what companies do authorized agents obtain the vaccines? How many companies in Mexico produce the vaccine? How is vaccine distribution monitored to prevent their unauthorized entry into free zones?

R. The only vaccines utilized in the campaign are those verified and authorized by SAGAR (6.1 of Official Mexican Standard NOM-037-ZOO-1995. National Classical Swine Fever Campaign), and these are:

TRADE NAME	TYPE OF VACCINE	STRAIN	LABORATORY
Ingelvac	Modified live virus	Minnesota	Anchor, S.A.
Clasivac plus	Modified live virus	GPE	Pronabive
Porcivac	Modified live virus	PAV 1	Química Hoeschst
Colvasan	Modified live virus	PAV 250	Sanfer, S.A.
Certivog	Modified live virus	China	Syntex, S.A.
Certigen	Modified live virus	Minnesota	Syntex, S.A.

V MONITORING AND ENFORCEMENT

1.- The CSF Campaign's regulations are in place, but what regulations are applied by the authorities to ensure that the campaign's standards are followed in the State of Yucatán? Without a formal, organized veterinary infrastructure, what legal resources or actions can be implemented to prosecute violators of the CSF Campaign's regulations?

R. The legal statute applicable for penalizing noncompliance with Mexican Official Standards is the Federal Animal Health Law, which includes a chapter in its Title Four on violations and penalties and states in Article 54, paragraph I, that failure to comply with what is established in the official standards given in the present law is an administrative violation, in which case a fine will be assessed of from one hundred to fifteen thousand times the minimum wage. The minimum wage is understood to be the general minimum wage in effect in the Federal District at the time the violation is committed.

Title Three, Chapter II, of the law refers to verification and establishes that SAGAR may verify compliance with the official standards indicated in the law at any time and in any place, as is the case with the official standards that create animal health campaigns.

Verification may also be done by accredited verification units, only at the request of the interested party.

Furthermore, Articles 83 and 88 of the Livestock Production Law define the policy to be followed regarding animal health campaigns. That same law, in Title Eight, Chapters I and II, establishes the legislative policies to be followed regarding violations and penalties.

2.- Are violators prosecuted by federal authorities, by a state authority, by SAGAR, or by a combination of the three?

R. As established in Article 3 of the Federal Animal Health Law, the enforcement of this law corresponds to the Federal Executive Branch, through SAGAR.

VI LABORATORIES

1.- Which laboratories in the State of Yucatán receive suspicious samples? Where are they located?

R. The "MVZ Arturo Medina Figueras" Regional Animal Pathology Reference Laboratory, accredited for the diagnosis of CSF in Yucatán, which is located at Km. 4.5 Antigua Carretera a Motul, Col. Díaz Ordaz, Mérida, Yucatán.

2.- Are there other laboratories authorized to receive these samples? What procedures are there in place to ensure that these laboratories report these samples to the "MVZ Arturo Medina Figueras" Regional Animal Pathology Reference Laboratory"? Is this the reference laboratory designated by the State of Yucatán for CSF?

R. In addition to the "MVZ Arturo Medina Figueras" Regional Animal Pathology Reference Laboratory, which is accredited for CSF diagnosis in Yucatán, as a National Reference Laboratory CENASA can receive samples for CSF, as can the CPA's laboratory.

3.- Are there any serological records that give any indication of a cross reaction of any of these serological samples with bovine viral diarrhea?

R. There are no records with evidence of a cross reaction with bovine viral diarrhea. The differential ELISA test is run whenever a positive immunoperoxidase result is found.

4.- What is the capacity of the accredited laboratories in Mérida for doing virology work? Apparently serology is done, but no reference is made to the capacity for virological diagnosis.

R. The "MVZ Arturo Medina Figueras" Regional Animal Pathology Reference Laboratory does perform immunofluorescence and immunoperoxidase CSF diagnostic tests. However, viral isolation for this disease is done at the National Center for Animal Health Diagnostic Services in Santa Ana Tecamac (CENASA) at the CPA's high security laboratory.

5.- a) How are samples from sick pigs handled? b) Are all samples tested for CSF diagnosis? Please describe.

R. a) For the direct immunofluorescence test samples are taken from tonsils, spleen, lymph nodes, parotid or mandible, and are kept at a cold temperature of between 2 and 4°C. In the case of indirect immunofluorescence or viral isolation, a kidney sample is also taken.

The histopathology is done based on samples from the brain, cut lengthwise, tonsils, lymph nodes, kidney, liver and spleen. The samples are fixed in a buffer solution of 10% formaldehyde at a ratio of 10 parts of solution to 1 of tissue.

In the case of immunoenzyme assay (ELISA) techniques, for detecting CSF virus antibodies, immunoperoxidase: for detecting and quantifying specific CSF virus antibodies, this is done by using samples of at least 5 ml. of blood serum, which must have the following physical characteristics: pale yellow color, translucent, with no suspended particles, and odorless. They are placed in plastic or sterilized glass jars or tubes, and are kept refrigerated at between 2 and 7°C or frozen at -5°C.

b) When CSF is suspected, the corresponding tests are run routinely, particularly in those cases where redness, septicemia or sudden death are observed.

VII INSPECTIONS AND SURVEY PLANS

1.- As indicated previously, in areas recognized as CSF-free zones, annual surveys of the swine populations are made. However, no reference is made to any subsequent program in the State of Yucatán. Additional information from Yucatán is needed besides that sent for review concerning the distribution of the epidemiological survey and its design. The results of the epidemiological survey submitted seem to be from a survey conducted at a given moment and not an annual inspection.

R. In the State of Yucatán, since September 1993 when it entered the eradication phase, all swine entering the State of Yucatán are quarantined and submitted to diagnostic tests even if they come from free zones, and also other swine that are natives of Yucatán, the latter as part of the monitoring and surveillance activities.

To declare the State of Yucatán a CSF-free zone, a survey was made in March 1995 of hogs both on commercial farms and in backyard operations. The CSF diagnostic tests from this survey were processed at the National Center for Diagnostic Services (CENASA). After declaration of a state as being free of CSF, the official regulations establish epidemiological surveillance of zones free of this disease. In the case of Yucatán, starting in 1996 a state epidemiological surveillance system was implemented focusing on permanent, continuous sampling on commercial farms, backyard operations, and also TIF and municipal abattoirs and slaughterhouses (the epidemiological surveillance program is attached).

2.- What is the swine population in Yucatán? The swine census does not show the year. Can you send us an annual swine census since 1992 for our files?

R. The State of Yucatán has a detailed swine census which was taken in 1993 and updated by monitoring of the state done in 1995. It is summarized in the following tables:

CONSOLIDATED CENSUS OF SWINE-RAISING FARMS AND THEIR POPULATION BY RURAL DEVELOPMENT DISTRICT

R.D.D.	FARMS	BREEDING STOCK	FOR MARKET	SITE 2	SITE 3
Mérida	191	43.569	165.573	48.000	108.000
Ticul	14	6.479	22.239	6.000	7.000
Tizimin	-	-	-	-	-
Valladolid	10	9.663	440	33.000	-
Total	215	59.711	188.252	87.000	115.000

INVENTORY OF BACKYARD SWINE PRODUCTION BY RURAL DEVELOPMENT DISTRICT

DISTRICT	INVENTORY/HEADS
Mérida	80.157
Ticul	11.905
Tizimin	1.588
Valladolid	20.604
Total	114.254

3.- What criterion was used to determine how many animals were selected for sampling on each farm? Please give details of the epidemiological survey design, including the structure and the criterion for determining the number of samples per commercial operation and per backyard herd.

R. To declare the State of Yucatán a CSF-free zone a survey protocol was developed to evaluate its animal health status regarding this disease. To determine the size of the sample, a division was made between commercial swine operations and backyard production.

The serological survey of commercial swine operations was divided up by municipality, number of farms per municipality, and number of hogs per farm. A population of 1,400,000 swine was taken to estimate the sampling, with an expected frequency of the disease of 0.5%, an acceptable error of 0.1% and a confidence level of 99%, with which a sample size of 2,060 animals was obtained.

In the case of backyard production, the division was made by Rural Development District, taking a state population of 260,096 animals, an expected frequency of 3%, an acceptable error of 1%, and a confidence level of 99%, resulting in a sample size of 482 animals.

To estimate the statistical sample size for both commercial swine operations and backyard production, the Epi-Info epidemiological program was used which describes the mathematical

formula utilized and the references.

To implement the state epidemiological surveillance system in the State of Yucatán after it became free of CSF, the sampling size used in the program described previously was used in which monitoring focuses on commercial and backyard populations, as well as the TIF and municipal abattoirs and slaughterhouses, as shown further in the paper.

4.- The serological survey of rural swine production in the State of Yucatán by Rural Development District (RDD) shows 429 samples obtained from a total population of 114,254 hogs. The number of samples obtained from commercial operations was 2,464 out of a total of 60,000 breeding swine. How were these figures determined as the sample size?

R. This question is answered under the previous item.

VIII SURVEILLANCE

1.- What types of surveillance are in place to ensure that CSF will not be brought into the State of Yucatán, since it is bordered on the Southeast and Southwest by states that have not been recognized by Mexico as being free of CSF?

R. As stated under point IV, the State of Quintana Roo has been declared free and the State of Campeche is in the eradication phase. In addition, all swine entering Yucatán are quarantined at their destination and are tested for CSF.

To prevent the entry of CSF into free zones, point 11 of Mexican Official Standard NOM-037-Z00-1995, National Classical Swine Fever Campaign, establishes the procedures for the movement of animals, animal products and by-products into free zones. Similarly, the procedures for importations are established in point 13.

In addition to the above, in Mexico there is the National Agricultural Quarantine System, the purpose of which is to establish in an integrated, institutional way, the strategic basis for the application of quarantine services which are conducted to protect the nation's agricultural, forestry and livestock patrimony. It is made up of the External and Internal Quarantine Services.

The External Quarantine Service includes all those activities intended to prevent the entry of diseases into the country, whereas the Internal Quarantine Service is in charge of the activities inherent in preventing diseases already existing within the nation's territory from spreading from infected areas to those that are free.

The Internal Quarantine is one of the most important elements in the success of animal health campaigns. It consists of implementing an effective quarantine control by establishing internal checkpoints (quarantine posts and stations) on the country's main highways where animals and agricultural products being transported are inspected, as well as verification of compliance with

the official regulations, thus guaranteeing that these shipments do not represent any plant or animal health risk.

The inspection posts that control animal products and agricultural by-products entering and leaving Yucatán are as follows:

YUCATAN	
Checkpoint names	**Location**
Halachó	Km. 65 Mérida-Campeche Highway
Santa Elena	Km. 29 Tikul-Hopelchen Highway
Santa Rosa	Km. 190 Mérida-Carrillo Puerto Hway
Xtobil	Km. 45 Valladolid-Carrillo Puerto Hway
La Sierra	Km. 47 Tizimin-Kantunilkin Highway
Popolnah	Km. 32 Kantunilkin-El Ideal Highway
Siho	Km. 9 West of Halachó
Xcan	Km. 70 Valladolid-Cancún Highway
Expressway	Km. 217 Mérida-Cancún Freeway
Uman	Km. 14.5 Mérida-Umán Highway

In addition to the above, the Internal Quarantine System is supported by the establishment of Regional Quarantine Lines consisting of 46 facilities, including checkpoints and quarantine stations, located around the regions formed by several states having similar animal health characteristics, which because of their geographic location, means of communication, and plant and animal traffic, have adequate controls on the movement of plants, animals, and agricultural products and by-products.

The quarantine line that provides protection for the Yucatán Peninsula is the Peninsula and Tabasco Region Quarantine Line, formed by the following inspection points:

PENINSULA AND TABASCO REGION QUARANTINE LINE	
Name	**Location**
Tonalá	Km.132 Fed.Hway 180 VHSA-Coatzacoalcos
Francisco Rueda	Km.90 State Hway Huimanguillo-Choapas, Ver.
San Manuel	Town of San Manuel hway to Chimea, Chis.
Amacohite	Km. 40 Fed. Hway 187 Huimanguillo-Malpaso, Chis.
Azufre	Km. 80 Hway 195 VHSA-Pichucalco, Chis.
Boca de Limón	Km. 30 State Hway VSHS-Reforma
Tulija	Km. 79 Fed. Hway 186 Municipality of Macuspana
Corralillo	Km. 100 Fed. Hway 186 juntion Municipality of Jonuta
Libertad	Km. 4 EmilianoZapata-Tenosique hway
Gregorio Méndez	Km. 43 Emiliano Zapata-Tenosique hway

External quarantine.- This type of quarantine is also considered to be the first sanitary defense barrier and has the objective of conducting preventive actions to avoid the entry of pests and diseases into the country. For this purpose, compliance with the plant and animal health regulations and requirements applicable to importations of animals, plants, and agricultural products and by-products is verified at ports, airports and border crossing points.

Each state has its own plant and animal health inspection stations to control movements at border crossings, airports and ports. In the State of Yucatán these are as follows:

PLANT AND ANIMAL INSPECTION STATIONS
BORDER CROSSING POINTS, AIRPORTS AND PORTS

YUCATAN		
Inspection Point	**Airport**	**Port**
Mérida*	1	
Progreso		1

*Chief Inspection Station, which gives inspection service to others nearby with fewer import movements.

Furthermore, the States of Yucatán, Campeche and Quintana Roo have signed an agreement to create the Peninsular Plant and Animal Health Council for the purpose of unifying the animal health status of the three states and forming a single region, so the control points along the boundaries between the Yucatán Peninsula and the State of Tabasco, Belize and Guatemala are being strengthened, in addition to controlling the seaport and airports.

2.- How many samples have been sent to the reference laboratories for continuous, routine surveillance?

R. The following samples have been sent to the Central Regional Laboratory in Mérida, Yucatán:

Classical swine fever (serology)	
1995	1,471
1996	7,874

The type of samples sent corresponds to breeding and meat animals from commercial farms, backyard operations, abattoirs, quarantine stations and suspected cases.

TESTED SAMPLES AT THE REGIONAL LABORATORY OF MERIDA
1996

ORIGIN	SAMPLES	TEST
Commercial farms	2,523	immunoperoxidase
Abattoirs	2,019	immunoperoxidase
Backyard	1,185	immunoperoxidase
Quarantines	897	immunoperoxidase
Re-sampled of suspected cases	1,123	immunoperoxidase
SUB TOTAL	**7,750**	
Tonsils of suspected cases	29	immunofluorescence
Serum of suspected cases	39	ELISA. (BVD-BD)*
Centinels of suspected backyards	56	immunoperoxidase
TOTAL	**7,874**	

*BVD - Bovine Viral Diarrhea.
BD - Border disease.

3.- What is the structure for monitoring and continuous, progressive surveillance for this swine disease? Is serological sampling done of all swine slaughtered at the abattoir? What plan does the Livestock Promotion and Protection Committee have in place for continuous CSF monitoring?

R. As stated above in point VII. starting in 1996 a state epidemiological surveillance system was established by the General Directorate of Animal Health for the purpose of verifying that the State of Yucatán is kept free of CSF.
The obtained results in this monitoring are shown as follows:

Officials Results for Classical Swine Fever.
1996

Sampling in backyards units

Rural Development Districts	Total of Samples	Positives	Negatives
Mérida	830	5	824
Ticul	125	0	125
Tizimin	16	0	16
Valladolid	214	0	214
TOTAL	**1,185**	**5***	**1,179**

*Positives to immunoperoxidase. of which 2 were positive to ELISA and negative to immunofluorescence.

Origin of the positive samples:

As result of a routine monitoring in backyard pigs in the community of Cansahcab, five samples were collected from a unit, of these one was seropositive to IP. The place was visited for the corresponding investigation and the collection of more samples. It was informed that the animals had been slaughtered and marketed by other person, who owned 6 pigs which were sampled. Additionally, one more pig was sampled in the proximity of the place.
The seven sera were submitted to the Mérida laboratory, resulting four sera positives to IP.
The sampling was extended to other units, collecting a total of 37 sera, all of which were IP negative.
Later, a meeting was held to inform pig producers these results and decide actions. It was agreed to buy a ELISA kit for confirmation.
Two sera were positives and one suspicious to ELISA, therefore, the following actions were taken: animals acquisition, previous indemnization, slaughter and elimination of carcass; cleaning and desinfectation of commodities; extension of the coverage of the sampling and sentinelization.
After the slaughter, tonsil samples of each animal were taken, resulting negative to the immunofluorescence at the CPA laboratory.
It is important to point that in none of the samples the result was clear and conclusive, furthermore, they were not specific in each case, but being suspicious, it was agreed to eliminate all the animals. Due to this fact, it was decided to submit the tonsils to the CPA laboratory.
Days after, six pigs of the community of Kanasin were sampled to confirm they were CSF free and in this way be used as sentinels in the affected populations. These pigs were consecutively sampled during two months, resulting negative in all cases to CSF.

Abattoir Sampling

Community	Total of samples	Positives	Negatives
Merida	438	0	438
Uman	21	0	21
Kanasin	37	0	3
FMVZ	7	0	7
Progreso	11	0	11
Hunucma	7	0	7
Maxcanu	7	0	7
Halacho	7	0	7
Conkal	6	0	6
Temax	2	0	2
Motul	13	0	13
Izamal	6	0	6
Tekanto	1	0	1
Tekax	7	0	7
Cenotillo	5	0	5
Buctzotz	7	0	7
Tizimin	29	0	29
Valladolid	30	0	30
Keken	1,378	0	1,378
TOTAL	**2,019**	**0**	**2,019**

Commercial Farms Sampling

Community	Total of Samples	Positives	Negatives
Abala	114	0	114
Acanceh	78	0	78
Bokoba	1	0	1
Cacalchen	24	0	24
Cantamavec	29	0	29
Chicxulub	17	0	17
Chochola	17	0	17
Cchumavel	22	0	22
Conkal	96	0	96
Cuzama	15	0	15
Dzan**	0	0	0
Halacho	34	0	34
Hocaba	12	0	12
Hoctum	14	0	14
Homun	9	0	9
Hunucma	70	0	70
Kanasin	62	0	62
Kinchil	6	0	6
Kopoma	64	0	64
Mama	10	0	10
Maxcanu	62	0	62
Merida	762	2	760
Motul	70	1	69
Muna	70	0	70
Muxupip	10	0	10
Opichen	90	0	90
Oxkutzcab**	0	0	0
Progreso	172	0	172
Samahil	28	0	28
Santa Elena	59	0	59
Seve	17	0	17
Sotuta	57	0	57
Thamek	10	0	10
Teabo	1	0	1
Tecoh	85	0	85
Tekanto	12	0	12
Tekax	5	0	5
Tekit	8	0	8
Telchac Pblo	38	0	38
Tepakan	7	0	7
Tetiz	31	0	31
Teya	0	0	0
Ticul	41	0	41
Timucuy	33	0	33
Tixkokob	8	0	8
Uayma	7	0	7
Uman	110	0	110
Valladolid	12	0	12
Yobain	24	0	24
TOTAL	**2,253**	**3***	**2,520**

A total of 171 farms were considered.

*Positive to immunoperoxidase and ELISA test. due to vaccination and negative to immunofluorescence.

**These farms were empty when the sampling was done.

Origin of the positive sample:

Mérida.- As part of the re-certification process, 27 sera were collected in farm Yacxhe, from which two resulted positives to IP and ELISA techniques, thus, a sampling was programmed for 100% of the farm animals. Four hundred fifty seven samples were obtained from breeding animals and 20 from meat pigs. The laboratory reported 10 positive samples by IP technique. Even when in the investigation, it was found that the positive animals had been vaccinated close to the suspension of the vaccination period (September, 1993), the slaughter of the animals was agreed between the owner and pig producers. After the slaughter, tonsil samples were taken of each animal, resulting negative by immunofluorescence. Seventy samples more were collected from the farm, resulting all negatives to CSF by IP.

Motul.- During the same process of re-certification for CSF free zones, 30 samples were taken from San Antonio Pork farm, and tested by IP. One was positive and one suspicious. They were analyzed by ELISA to discard BVD and BD, same results were obtained.
During the investigation, it was established that the positive case corresponded to a replacement sow that was introduced in the farm at the beginning of 1993 (It is possible that it was vaccinated more than once). Regarding the suspicious sera, it was detected that the animal arrived from Canada, and entered the farm in September 1994. Hence, it was decided to sample the 100% of the breeding animals and meat animals of the farm.
In total 593 sera were taken from breeding animals and 53 sera from meat animals. All the animals were identified. These samples were tested by IP, 22 positives came from breeding animals, the rest were negative. The positive animals had arrived to the farm between August 1992 and September 1993, again a date very close to the suspension of the vaccination. Subsequently, these samples were tested by ELISA, resulting positive to CSF and negative to BVD and BD. In agreement with the Merida Local Livestock Association of Pig Producers and the owner, it was decided the elimination of the affected animals . After this, tonsil samples were taken from each of the 22 animals, which were negative by immunofluorescence. Later on, 72 more samples were obtained , which were negative by IP.

IX SWINE MOVEMENTS - SURVEILLANCE - CONTROL POINTS

1.- By what means of transportation are hogs that come from Sonora and Sinaloa brought into the State of Yucatán? From other countries? For what purpose are these hogs imported into the State of Yucatán?

R. Hogs coming from England, Denmark and the United States enter by air. Those coming from Sonora and Sinaloa come overland.

Hogs introduced into the State of Yucatán are registered animals with high genetic value and are imported for the purpose of improving the breeding stock. No swine have entered Yucatan to be marketed as meat for ten years.

2.- How do shipments of swine products coming from control zones enter the State of Yucatan? Please describe packing and transportation from authorized TIF plants. Specifically, who issues the appropriate form accompanying these shipments from authorized TIF plants located in zones that are not free?

R. Point 11 of Official Mexican Standard NOM-037-ZOO-1995, National Classical Swine Fever Campaign, gives the requirements for the movement of swine products and by-products when the point of origin is an eradication or control zone and the destination is an eradication or free zone.

Movements of products and by-products must be made by TIF establishments that meet the following requirements: have a TIF registration in force; have express authorization from the General Directorate of Animal Health to market their products and by-products in CSF-free and eradication zones; transportation must be in vehicles with metal strapping. In making their products, these enterprises must use raw materials produced in or coming from CSF-free zones or countries or eradication or control zones, and they must come from TIF abattoirs. These enterprises must follow the requirements regarding the heat procedure and the procedures for movements and identification described in the corresponding chapter of the regulation.

To authorize movements of swine products and by-products into free zones and those in the eradication phase, the official or accredited veterinarian shall issue the corresponding animal health certificate.

3.- What are the inspection and examination methods in the area's international airport? In 1993 air traffic was 200 flights a week. What is the number at present, and of these, how many are domestic flights and how many come from other places?

R. The Procedures Manual of the International Plant and Animal Inspection Executive Directorate gives a detailed explanation of the inspection procedure for checking the luggage of passengers and crew members, which in broad outline is as follows:

There are plant and animal health inspectors distributed throughout the international arrival area near the luggage conveyer belts and inspection tables. Luggage is checked and inspected at random or at the request of customs personnel.

If animal or plant products are found to offer no plant or animal health risk, these products are allowed to go through.

If, on the contrary, animal or plant products are found that because of their nature and the country from which they come are considered to fall under an absolute or partial quarantine, they are seized for subsequent destruction, with the corresponding document issued covering the confiscation and destruction.

If the product can be given a treatment that will guarantee the destruction of the pest or pathogen,

the treatment is applied and the product is released.
It was estimated that in 1996 there were 1.812 international and 6.012 domestic flights. The list of average weekly air traffic for 1995 and 1996 is shown below:

AVERAGE WEEKLY AIR TRAFFIC

Month	Domestic		International	
	'95	'96	'95	'96
January	134	110	38	34
February	125	113	40	37
March	126	116	40	36
April	129	111	37	34
May	121	121	31	36
June	114	116	30	36
July	126	115	31	35
August	134	114	30	34
September	121	122	31	33
October	11	121	31	35
November	108	119	34	32
December	103	125	34	35
Average/month	121	115	34	35

4.- How many cruise ships call at Yucatán ports? What measures are taken there to prevent the entry of foreign food (that eventually can be converted into garbage) brought with them by tourists who disembark from these cruise ships?

R. The complete list of cruise and commercial cargo ships docking at the marine terminal in Puerto Progreso, Yucatán, is as follows:

List of International Ships Docking at the Marine Terminal in Progreso, Yucatán.

	1993		1994		1995		1996	
Month	Com.	Tour.	Com.	Tour.	Com.	Tour.	Com.	Tour.
January	19	3	22	0	25	0	29	0
February	21	0	31	0	15	0	22	0
March	18	0	30	0	21	0	21	1
April	15	0	31	0	18	1	21	4
May	21	0	29	0	24	0	20	4
June	22	0	20	0	15	0	20	4
July	25	0	27	0	23	0	21	0
August	9	0	28	0	22	0	24	0
September	13	0	26	0	23	0	23	0
October	26	0	25	1	23	0	20	0
November	22	0	25	0	23	0	25	1
December	26	1	21	0	22	0	23	0
Total	247	4	315	1	254	1	269	14

In the manual mentioned in the previous answer, the following is explained:
When a ship arrives at the dock, it is boarded by the plant and animal health inspector, who requests: the ship's itinerary, cargo manifest, list of provisions, passengers and crew, passengers' and crew's luggage declarations and declaration of the presence of animals on board.
He inspects holds, galleys and kitchens, and examines all animal or plant products. If he finds any products under absolute quarantine or whose origin cannot be determined, he seals the holds and galleys.

He communicates with the ship's captain or first officer, who instructs the crew not to take animal or plant products on land and if they are going to unload luggage they must inform the plant and animal inspector of this so that these can be checked. If products offering a plant or animal health risk are found, they are seized and destroyed.
If a quarantine pest is found during the inspection of the ship's holds and compartments, either an partial or absolute quarantine may be declared. In the first case, orders are given to fumigate the compartment in which the pest was found, and in the second case, it is seized and destroyed. All of this is under the plant and animal health inspector's supervision.

Unloading garbage or dumping it into Mexican territorial waters is not permitted. It must be placed in protected bags or containers or destroyed in the ship's incinerator. It can be destroyed in the inspection station if it has an incinerator, under the supervision of the plant and animal health inspector. In the case of the marine terminal in Puerto Progreso, unloading of garbage is not allowed because it does not have an incinerator nor is there any company with a concession for this purpose.

5.- **Describe the program (State, Federal or RDD) that ensures adequate cooking of garbage and other food materials prior to their being fed to hogs, livestock and poultry.**

R. In commercial swine production, garbage is not used for feeding hogs. In the case of rural swine production where this practice may be used, it is invariably with by-products from the same zone. However, given the zone's socioeconomic conditions, this situation seldom occurs.

6.- **For a state in which the swine industry is of great importance and which has an approved TIF plant, can you explain the large amounts of swine products that are imported by the State of Yucatán? The amounts shipped indicate that Yucatán imports more swine products than it exports.**

The following tables complement the information submitted previously, showing that the trend for importations of swine products (meat and viscera) is towards a slight decrease, whereas exports are showing a strong upward trend. This occurred starting in June 1994 when the TIF-152 plant began operations. It can also be seen that imports of by-products are much greater than exports. This is because the state's packing industry is just getting started. All swine by-products that are imported come from CSF-free zones or countries or from TIF plants authorized to market in CSF-free zones:

	PRODUCTS (Meat and viscera)			BY-PRODUCTS (Cold cuts)		
Month	Leaving	Entering	Difference	Leaving	Entering	Difference
Oct -93	27,146	105,807	-78,661	244,184	517,587	-273,403
Nov -93	32,363	263,922	-231,559	131,948	548,528	-417,580
Dec -93	53,104	290,253	-237,149	202,016	828,821	-626,805
Jan -94	37,264	163,565	-126,304	166,799	396,695	-209,896
Feb -94	93,436	136,078	-42,642	158,687	383,685	-224,998
Mar -94	144,845	294,201	-149,356	112,184	445,936	-333,752
Apr -94	118,230	152,762	-34,532	116,433	509,620	-393,187
May- 94	170,219	235,701	-65,482	108,962	563,800	-444,838
Jun -94	388,864	171,307	217,557	107,742	595,933	-468,191
Jul -94	432,676	107,777	328,899	132,187	458,342	-326,155
Aug -94	540,906	142,955	397,951	138,838	513,204	-374,366
Sept-94	688,464	159,463	529,001	146,455	581,378	-434,923
Oct -94	704,231	99,911	604,320	165,817	584,724	-418,907
Nov -94	746,355	179,203	567,162	152,263	590,464	-438,201
Dec -94	989,911	121,745	867,966	234,952	759,659	-524,707
Jan -95	967,985	106,207	861,778	237,100	418,204	-181,104
Feb -95	922,350	69,022	853,328	208,634	388,254	-179,620
Mar -95	1,492,788	65,552	1,427,236	226,044	578,265	-352,221
Apr.-95	1,394,064	109,996	1,284,068	197,794	388,890	-191,096
May -95	1,638,774	135,839	1,502,935	253,964	563,468	-309,504
Jun -95	1,684,182	160,721	1,523,461	255,810	538,512	-282,702
Jul -95	1,582,309	210,926	1,371,383	300,933	579,543	-278,610
Aug -95	1,737,742	158,007	1,579,735	314,030	671,856	-357,826
Sept-95	2,119,362	155,169	1,964,193	291,325	608,649	-317,324
Oct -95	1,220,575	70,912	1,149,663	276,250	510,089	-233,839
Nov -95	1,478,041	36,104	1,441,937	249,055	487,117	-238,062
Dec -95	1,406,343	58,055	1,347,488	295,969	878,802	-582,833

Jan -96	1,272,497	106,562	1,165,935	235,828	432,209	-196,381
Feb -96	1,165,341	122,463	1,042,878	264,177	467,383	-203,206
Mar -96	1,226,260	77,648	1,148,612	276,209	537,699	-261,490
Apr -96	1,349,476	70,403	1,279,073	218,688	483,556	-264,868
May -96	1,352,547	49,168	1,303,379	275,982	453,740	-117,758
Jun -96	1,642,938	95,444	1,547,474	269,219	488,975	219,756
Jul -96	1,533,401	23,431	1,509,970	347,755	560,821	-213,066
Aug -96	1,539,874	94,341	1,445,533	324,371	568,047	-243,676
Sep- 96	1,509,425	194 986	1,314,439	238,453	546,557	-308,104
Oct-'96	1,458,817	99,257	1,357,560	336,344	500,906	-166,562
Nov- 96	1,452,922	12,600	1,440,322	202,314	419,179	-216,866
Dec-'96	1,839,044	188,037	1,651,007	412,934	1,129,890	-716,756
TOTAL	**40,155,01**	**5,196,300**	**34,960,578**	**8,828,649**	**21,478,987**	**-12,602,139**

7.- The number of vehicles inspected at the inspection points for control of movements causes concern. Is there an explanation for the increase in the number of vehicles passing through these control points, which rose from a total of 17,683 in 1994 to 62,223 up to March 1995? Of the 17,683 vehicles in 1994, 287 were returned, whereas from January to March 1995 62,223 vehicles were inspected and of this number only 42 were returned. Can you explain how a much larger number of vehicles inspected resulted in a much smaller number of returns? Also, no reason is given for returning these vehicles. Can the reasons for returning them be identified, that is, if the return was due to animals or animal or plant products? This information would be very useful in evaluating the returns.

R. The reason is that there was a mistake in transcribing the figures, that is, the figure of 62,223 corresponds to 1994 and the figure of 17,683 to 1995. The yearly cumulative figure can be seen in the updating of the following information:

SUMMARY OF VEHICLES INSPECTED AT CHECKPOINTS FOR THE CONTROL OF MOVEMENTS

SPECIES	1994	1995	1996
Entering	2,332	1,928	2,310
Leaving	11,795	13,067	9,036
In transit	252	212	85
By-Products			
Entering	2,724	3,017	4,061
Leaving	11,114	15,474	21,011
In transit	386	1,113	1,153
Plants			
Entering	14,411	15,002	14,506
Leaving	16,681	17,227	14,199
In transit	896	724	602
Forest Products			
Entering	1,350	32	0
Leaving	108	3	0
In transit	174	0	0
Totals			
Entering	20,817	19,979	20,867
Leaving	39,698	45,771	48,916
In transit	1,708	2,049	1,840
Grand Total	62,223	67,799	71,623

VEHICLES REJECTED IN 1994 THAT WERE TRANSPORTING ANIMALS

REASON	SWINE	POULTRY	CATTLE	OTHERS *	TOTAL
No animal health certificate		12	39	3	54
Federal regulations		21	10		31
Presence of ticks			11		11
No Salmonella and Newcastle certificate		3			3
Documentation expired			2		2
Documentation incomplete		5			5
TOTAL					**106**

*circus animals

VEHICLES REJECTED IN 1994 THAT WERE TRANSPORTING ANIMAL PRODUCTS AND BY-PRODUCTS

	SPECIES				
REASON	**SWINE**	**POULTRY**	**CATTLE**	**OTHERS ***	**TOTAL**
No animal health certificate	2	35	15	5	57
Federal regulations	3	18	2		23
No metal strapping	4				4
No documentation for another destination	1	2			3
Errors in documentation	1	1	2		4
Documentation expired	2	1	2		5
TOTAL					**96**

VEHICLES REJECTED IN 1994 FOR VARIOUS REASONS	
Transporting used bee-keeping equipment	4
Transporting dirty chicken skinners	1
Containing poultry excrement	4
Transporting used egg cartons	12
Transporting poultry feed in the vehicle bed	6
Transporting plastic egg containers	1
Transporting bags of swine feed	1
TOTAL	**29**

VEHICLES REJECTED IN 1995 THAT WERE TRANSPORTING ANIMALS

	SPECIES				
REASON	**SWINE**	**POULTRY**	**CATTLE**	**OTHERS** *	**TOTAL**
No animal health certificate		5	10	1	16
Presence of ticks			17		17
No Salmonella and Newcastle certificate		5			5
Federal regulations		2	3		5
Documentation incomplete			1		1
TOTAL					**44**

VEHICLES REJECTED IN 1995 THAT WERE TRANSPORTING ANIMAL PRODUCTS AND BY-PRODUCTS

REASON	SPECIES SWINE	POULTRY	CATTLE	OTHERS *	TOTAL
No animal health certificate	1	7	4	0	12
Federal regulations	9	11	0	0	20
From an unauthorized plant	1	0	0	0	1
TOTAL					33

VEHICLES REJECTED IN 1995 FOR VARIOUS REASONS

Transporting bags containing poultry feed		2
No documentation for transporting	honey 2 lard 1 bones 2 semen 1	6
Transporting used cartons (egg)		11
Incomplete documentation		1
TOTAL		20

VEHICLES REJECTED IN 1996 THAT WERE TRANSPORTING ANIMALS					
		SPECIES			
REASON	SWINE	POULTRY	CATTLE	OTHERS *	TOTAL
No animal health certificate		2	7	0	9
Presence of ticks			14		14
No Salmonella and Newcastle certificate		3			3
Federal regulations		2	2		4
Documentation incomplete	1				1
TOTAL					31

VEHICLES REJECTED IN 1996 THAT WERE TRANSPORTING ANIMAL PRODUCTS AND BY-PRODUCTS					
		SPECIES			
REASON	**SWINE**	**POULTRY**	**CATTLE**	**OTHERS** *	**TOTAL**
No animal health certificate		4	2		6
Federal regulations	6	9			15
From an unauthorized plant					0
TOTAL					**21**

X. RISK ASSESSMENT FOR THE REINTRODUCTION OF CLASSICAL SWINE FEVER

a) What evidence supports the estimated prevalence of 15-50% on farms located in control and eradication zones, with a probability of more than 30%?

R. The National Epidemiological Surveillance System and the National Classical Swine Fever Campaign have reliable elements for estimating the prevalence on farms located in control zones, in accordance with the epidemiological history of the operation and the state in which it is located.

In the case of farms located in eradication zones, the serological sampling history makes it possible to confirm a CSF virus negative status. However, these zones must remain at least one year with no serologic evidence, which is confirmed with another serological survey.

b) Are there any data that help to estimate the number of chronic/moderate cases versus acute/severe cases on farms in these zones?

R. Yes, it is possible to estimate the chronic/moderate cases versus the acute/severe cases because of notification of suspected cases of CSF on farms located in control zones, which are investigated by official or accredited personnel who submit serologic samples and/or other types of samples for diagnosis. As a preventive measure, a quarantine is established which is suspended if the laboratory's diagnosis is negative, and also the results of the epidemiological investigation.

The clinical histories of the cases, both suspicious and positive, can determine the seriousness of the outbreak (chronic and acute cases).

REQUESTED INFORMATION ABOUT THE CSF STATUS IN THE STATES OF CAMPECHE AND QUINTANA ROO

Campeche

The swine population census at commercial farms and backyards units is as follows:

INVENTORY OF SWINE FARMS
1996

R.D.D.	MUNICIPALITY	EJIDO UNITS	NO. BOARS	NO. SOWS	NO. MEAT	NO. PIGLETS
Hecelchakan	Calkini	Nunkini	4	60	0	220
Campeche	Campeche	Bobola	4	63	260	140
		Hampolol	18	145	580	557
		Koben	8	120	450	330
Champoton	Champoton	Sihochac	6	115	430	320
TOTAL:		5	**40**	**503**	**1,720**	**1,567**

INVENTORYOF BACKYARD PIGS
1996

R.D.D.	MUNICIPALITY	NUMBER OF COMMUNITIES	NUMBER OF HOUSINGS	PIGS TOTAL
Hecelchakan	Calkini	19	2,508	13,970
	Hecelchakan	17	1,088	5,826
	Tenabo	9	823	3,820
	TOTAL:	45	4,419	23,616
Campeche	Campeche	56	2,435	11,373
	Hopelchen	118	6,110	41,365
	TOTAL:	174	8,545	52,738
Champotón	Champotón	138	3,873	17,200
Escarcega	Carmen	211	2,659	15,400
	Escarcega	115	8,114	29,700
	Palizada	42	1,628	9,900
	TOTAL:	368	12,401	148,554
	GRAND TOTAL	**725**	**29,238**	**148,554**

Currently the state of Campeche is in eradication phase since July 15,1996. In accordance with the prevailing CSF standard (NOM-037-Z00-1995 National Campaign against Classical Swine Fever), the State is presently, in process of performing a representative sampling of hogs. The units sample size and total number of samples required are shown in the table below:

STATE SAMPLING
1997

TYPE OF FARMING	TOTAL OF UNITS	TOTAL OF SAMPLES
Ejido units	5	295
Backyard units	299	1,495
TOTAL	**304**	**1,790**

Notes: From Cannon and Roe, 1982, for disease presence or absence.
In ejido units, it was considered a 95% confidence and 5% expected proportion of positives. Samples will be as follows: 80% sows, 10% boars and 10% pigs above 4 months old.
In backyard units, it was considered a 95% confidence and 1% expected proportion of positives, as well as 5 pigs average per unit. At least five samples per unit will be taken.

QUINTANA ROO

The census of the swine population in commercial farms and backyard units is as follows:

SWINE STATE INVENTORY (thousands of heads)

COMMUNITY	COMMERCIAL	BACKYARD	SUBTOTAL
Othon P. Blanco	3.1	17.8	20.9
Felipe Carrillo Puerto	6.4	8.5	14.9
José Ma. Morelos	10.7	8.2	18.9
Cozumel	0	0	0
Lázaro Cárdenas	10.5	6.9	17.4
Benito Juárez	58.5	4.2	62.7
Isla Mujeres	0	0.7	0.7
Solidaridad	0	7.5	7.5
TOTAL	**89.2**	**53.8**	**143.0**

Epidemiological sampling for CSF freedom:

In order to obtain the CSF free status, a serological sampling was carried out during the period of September to October 1995. Based in a statistical outline and the distribution of the swine population, the General Directorate of Animal Health, in coordination with the State Livestock Subdelegation of SAGAR, produced the protocol. Samples were submitted to CENASA.

Even when the sample size protocol required a total of 2,292 sera (750 commercial pigs and 1542 backyard pigs), a total of 2,508 samples were collected from the municipalities of Cancún, Felipe Carrillo Puerto and José Maria Morelos. The diagnostic tests used were: immunoperoxidase ELISA and viral interference.

The table below shows the origin of sera and the results to the screening test immunoperoxidase:

RDD	NUMBER OF SERA	POSITIVES	NEGATIVES
Felipe Carrillo Puerto	283	4*	- 279
Cancún	1937	2*	1935
Chetumal	288	-	288
TOTAL	**2,508**	**6**	**2,502**

NOTE:
The 2 Cancun positive sera, were lately tested by ELISA and viral interference with negative results.

In regards to the other 4 positive sera, from Felipe Carrillo Puerto, they were taken from the San Diego farm, located in the municipality of Jose Maria Morelos, and belonged to adults pigs over 3 years old which had been systemically vaccinated until 1994.